HIGH RANGE WATER-REDUCING/SUPERPLASTICIZING and ACCELERATING SELF-LEVELING CONCRETE ADMIXTURE

Description: PASS 550 Admixture is a super plasticizer based on polycarboxylate acid. Made with selected polymers, this product is formulated to provide excellent water reduction. which results in higher early strength. improved workability. and enhanced durability. Additionally, it elevates the concrete's ultimate compressive strength while allowing for reduced cement content, without compromising its mechanical performance.PASS 550 decreases the amount of water by (30-40) % to cement ratio.

Technical Properties:

Chemical Content	Polycarboxylate polymer
Appearance	Liquid
Color	Brown
pH	4 - 7
Density (20 °C)	1.06 – 1.10 g/cm³
Chloride Content (%)	< 0.1
Alkaline Content (%)	< 5
Freezing	-10 °C

Advantage:

- Reduced water-cement ratio to improve durability and minimize permeability.
- Accelerated setting time and early strength gain, allowing faster formwork removal and early load application.
- Enhanced workability with reduced water content. yielding higher strength and
- Increased durability in concrete.
- Self-compacting concrete.
- To increase initial and final strength.
- Can be used for special type of concrete (C50-C60)MPA.
- Improved cold-weather performance, minimizing the risk of delayed setting.
- Reduces bleeding and segregation relative to conventional mixes.
- Accelerated construction cycle, suitable for precast and fast-track projects.
- Does not contain chloride or any other substances that may cause corrosion.

Area of Use:

- Cold-weather concreting to speed up setting and protect against delays in strength development. Application where fast stripping is needed.
- Precast and prestressed concrete production to allow early demolding and faster turnover.
- For tunnel works for rapid early strength and reduced rebound.
- Projects needing rapid reopening for traffic or operation.
- Concrete mixes designed for low water-cement ratio and rapid strength gain.

Dosage:

The recommended dosage of PASS 550 is between 0.5 – 1.2% by weight of the total binder content in the concrete mix design.The specified dosage may vary depending on the type of cement, aggregate properties, mineral additions, water content, and the required fresh and hardened concrete performance characteristics.The optimum dosage should be determined through laboratory trials based on the specific project requirements, and the final mix proportions should be established accordingly.When it is required, the Shva Co. technical support unit should be consulted.

Method of Application:

PAS 550 should be added to the mixing water or directly into the concrete mix during batching. It is recommended not to add the admixture to dry cement.Ensure adequate mixing time after addition to achieve uniform distribution throughout the concrete.For optimum performance, trial mixes are strongly recommended before large-scale production to verify workability, setting behavior, and strength development under specific project conditions.

Standards:

- PASS 550: EN 934-2 Table 12
  ASTM C 494 Type E

Compatibility:

PASS 550 admixture is compatible with other Shva Co. admixtures used in the same concrete mix.if more than one type of admixture will be used in the concrete mix, they must be dispensed to the concrete separately.

Precautions in Application:

- Do not exceed the recommended dosage without prior laboratory verification.
- Always perform trial mixes before full-scale production.
- Do not add directly to dry cement; ensure addition into mixing water or fresh concrete.
- Adjust dosage in case of changes in cement type, aggregate grading, mineral additions, or ambient temperature.
- Protect the product from frost and direct sunlight.
- Ensure proper mixing time to achieve homogeneous distribution.
- Compatibility with other admixtures must be tested before combined use.
- Use appropriate personal protective equipment during handling.

Cleaning:

PASS 550 admixture can be washed with fresh cold water and should not be allowed enter sewers or open bodies of water.

Packing: 25 kg plastic drum 200 kg drum - 1000 kg container Bulk

Storage and Shelf Life: Must be stored at temperatures between +5°C and +35°C. Under proper storing conditions, the product's shelf life is 12 months from production date if kept in original packaging unopened and undamaged. Packaged products must be shaken before use.

Security Information: Use protective clothes, gloves, glasses and mask compatible with Health and Safety regulations during the application. It should not contact skin and eyes. In case it contacts to skin and eyes, rinse it with water and if swallowed ask for medical help. Food and beverage should not be allowed in the application area. It should be stored at the reach out of the children. The Material Safety Data Sheet (MSDS) should be read for detailed information.

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